

WHAT IS CLAIMED IS:

1. A steam turbine comprising: a high-pressure module consisting of a single stage of blades, a low-pressure module, a speed-reducing gearbox, and an alternator, wherein said high-pressure module has a one-piece nozzle.
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2. The steam turbine according to claim 1 wherein each of said high-pressure module and of said low-pressure module includes a rotor and wherein said rotor of said high-pressure module and said rotor of said low-pressure module is driven by said speed-reducing gearbox.
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3. The steam turbine according to claim 1 wherein said single stage of blades of said high-pressure module embody a profile that includes channels that converge and then diverge in the direction from the inlet to the outlet thereof.
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4. The steam turbine according to claim 1 wherein said high-pressure module embodies the shape of a converging-diverging nozzle.
5. The steam turbine according to claim 4 wherein said nozzle is a multi-channel nozzle.
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6. The steam turbine according to claim 1 wherein said high-pressure module includes a moving wheel that is constrained to rotate with a shaft and that supports said blades and wherein said moving wheel and said shaft comprise a one-piece unit.
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7. The steam turbine according to claim 6 wherein said shaft is coupled to said speed-reducing gearbox.
8. The steam turbine according to claim 7 wherein said shaft is connected directly to said speed-reducing gearbox.
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9. The steam turbine according to claim 1 wherein said high-pressure module is provided with a single steam adjustment valve.

10. The steam turbine according to claim 1 wherein said high-pressure module
5 is provided with an independent bearing.